

REMARKS

The allowance of claims 11-29 is acknowledged. However, by the present amendment, allowed claims 11-29 have been amended, where appropriate, in order to clarify features of the present invention. For example, allowed claim 11, while reciting a gray scale voltage line driving circuit for supplying a gray scale voltage to at least two gray scale voltage lines for supplying said gray scale voltage to each of said pixels has been amended to now recite "at least two gray scale voltage lines for supplying a gray scale voltage to each of said pixels" with the recitation of a gray scale voltage line driving circuit being amended to recite "a gray scale voltage line driving circuit for supplying said gray scale voltage to said at least two gray scale voltage lines", while further defining that the selection means and a switching device are disposed inside each of said pixels. Allowed independent claims 16, 22 and 25 have been amended in a similar manner and applicants submit that such amendments are merely of a clarifying nature and do not affect the Allowability of claims 11-29.

Additionally, by the present amendment, the title has been amended to recite DISPLAY APPARATUS WITH PIXELS ARRANGED IN MATRIX which is generally a claimed feature and therefore, the title, as amended, is considered to be more clearly indicative of the claimed invention. Furthermore, by the present amendment, independent claims 1 and 2 have been amended in a manner which is considered to overcome the rejection of claims 1-10 under 35 U.S.C. 112, second paragraph, with claim 3 being canceled without prejudice or disclaimer of the subject matter thereof, and independent claims 1 and 2 being amended to recite the feature that the means for enabling display or for expanding are disposed inside said each pixel. It is noted that the dependent claims have been amended to correspond to the language of the parent claims and to correct informalities therein.

As to the rejection of claims 1-10 under 35 U.S.C. 112, second paragraph, this rejection is traversed insofar as it is applicable to the present claims, and reconsideration and withdrawal of the rejection are respectfully requested.

With respect to claim 1, the Examiner contends that the recited quoted language as set forth in the Office Action is not clear and in view of the position set forth by the Examiner, claim 1 has been amended to recite "comprising means, disposed inside said each pixel, for enabling display in accordance with a compressed image signal". Likewise, with respect to the language quoted by the Examiner with respect to claim 2, claim 2 has been amended to recite "comprising means, disposed inside said each pixel, for expanding a compressed image signal to gray scale information for each pixel", and applicants submit that claims 1 and 2, as amended, should be considered to be in compliance with 35 U.S.C. 112, second paragraph, as will be discussed below.

Applicants note that Fig. 1 of the drawings of this application is a block diagram of a display apparatus according to embodiment 1 of the present invention and Fig. 2 is a pixel circuit diagram of the display apparatus shown in Fig. 1. As described at page 13 of the specification, a compression method is utilized which compresses not only resolution of the pixels in one block in a spatial direction, but also the gray scale number. Therefore, a resulting signal is the image signal to which compression is applied in both the spatial axis and the gray scale axis and a compressed image signal is utilized in the display apparatus of the present invention. Referring to Fig. 2, which shows a pixel circuit diagram in the display apparatus of the present invention, as described at pages 13-15 of the specification, scanning lines 101 and identification signal lines 102 are formed in a matrix shape and a first active device 106 is disposed at each intersection so that the scanning line 101 serves as a gate terminal. When a select voltage is applied to a scanning line 101, the first active device 106 writes the potential of the identification signal line 102 to a

pixel memory 107, where the potential of the identification signal line 102 is acquired by converting the identification signal at each pixel to a voltage. The identification signal potential written into the pixel memory 101 renders either an n type active device 108 or p type active device 109 conductive and either the voltage applied to a gray scale voltage line 1 (103) or the voltage applied to a gray scale voltage line 2 (104), to which each active device is connected, is outputted to a fourth active device 110. Here, the voltage applied to the gray scale voltage line 1 (103) or the gray scale voltage line 2 (104) is acquired by converting the gray scale signal defined by the look-up table to the voltage value and subsequently, when a select voltage is applied to a gray scale write line 105, the active device 110 becomes conductive and the gray scale voltage is outputted to a pixel electrode 111, which voltage controls a light modulator 112 and the image is displayed. All of such structure is provided within each pixel, and such means, disposed in the pixel, serve for enabling display in accordance with a compressed image signal or for expanding a compressed image signal to gray scale information for each pixel. Thus, applicants submit that claims 1 and 2, as amended, and therewith the dependent claims should now be considered to be in compliance with 35 U.S.C. 112, second paragraph.

As to the rejection of claims 1-10 under 35 U.S.C. §103(a) as being unpatentable over Gormish (U.S. Patent No. 6,043,802), this rejection is traversed insofar as it is applicable to the present claims, and reconsideration and withdrawal of the rejection are respectfully requested.

As to the requirements to support a rejection under 35 U.S.C. 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under §103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As

noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Furthermore, such requirements have been clarified in the recent decision of In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002) wherein the court in reversing an obviousness rejection indicated that deficiencies of the cited references cannot be remedied with conclusions about what is "basic knowledge" or "common knowledge".

The court pointed out:

The Examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is immaterial to patentability, and could not be resolved on subjected belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher."... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion. (emphasis added)

Irrespective of the position set forth by the Examiner concerning Gormish, applicants submit that Gormish only discloses in the manner in which a lower resolution image is made from an original image. Applicants note that in accordance with Gormish, the original image represents a document displayed on a monitor and applicants submit that irrespective of the position set forth by the Examiner, Gormish

does not disclose or teach in the sense of 35 U.S.C. §103 any structure which may be considered "means, disposed inside said each pixel, for enabling display in accordance with a compressed image signal", wherein the display apparatus executes the display by independently applying a signal to each pixel of a group of pixels arranged in matrix, by use of the wires arranged in row and column directions, as recited in independent claim 1, or structure representative of "means, disposed inside said each pixel, for expanding a compressed image signal to gray scale information for each pixel" in a display apparatus for executing display by independently applying a signal to each pixel of a group of pixels arranged in a matrix by use of lead wires arranged in row and column directions, as recited in independent claim 2. Thus, applicants submit that claims 1 and 2 patentably distinguish over Gormish in the sense of 35 U.S.C. §103 and should be considered allowable thereover.

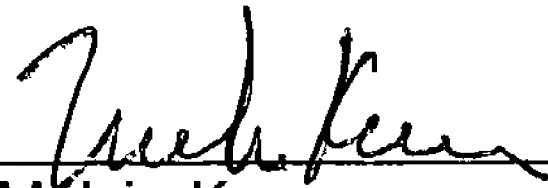
With respect to dependent claims 4-10, applicants submit that irrespective of the Examiner's position, Gormish does not disclose the claimed features of such claims, which features of the dependent claims, when considered in conjunction with parent claim 1, further patentably distinguish over Gormish, again noting that Gormish does not disclose structure disposed in a pixel of a display apparatus, which operates in the manner set forth. Accordingly, applicants submit that claims 1-10 patentably distinguish over Gormish in the sense of 35 U.S.C. §103 and such claims should also be considered allowable at this time.

In view of the above amendments and remarks, applicants submit that claims 1, 2 and 4-10 patentably distinguish over the cited art and should be considered allowable together with allowed claims 11-29, such that applicants request issuance of a favorable action.

Applicants note that submitted herewith is an Information Disclosure Statement and consideration of the material presented is respectfully requested.

To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (500.40540X00) and please credit any excess fees to such deposit account.

Respectfully submitted,



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